

## Memorandum

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To: KATHY SWANGER  
Contract Analyst  
Division of Procurement & Contracts

Date: March 26, 2008

File: P1400-2676

From: MARYANN CAMPBELL-SMITH  
Chief, External Audits

Subject: Postaward Audit – Mactec Engineering and Consulting, Inc.

We have audited Mactec Engineering and Consulting, Inc.'s (Consultant) proposed costs under Agreement No. 59A0561 with the Department of Transportation (Department) to determine whether the proposed costs are reasonable in relation to actual historical costs and estimating procedures, and whether the Consultant's financial management system is adequate to accumulate and segregate reasonable, allocable and allowable project costs. We also reviewed the executed contract to assess whether the required fiscal provisions are included.

The Consultant management is responsible for the fair presentation of the proposed costs, ensuring compliance with contract provisions and state and federal regulations, and that the financial management system maintained by the Consultant is adequate to accumulate and segregate reasonable, allocable and allowable costs.

Our audit was conducted in accordance with the Performance Standards set forth in the *Government Auditing Standards* issued by the Comptroller General of the United States of America. The audit was less in scope than an audit performed for the purpose of expressing an opinion on the financial statements of the Consultant. Therefore, we did not audit and we are not expressing an opinion on the Consultant's financial statements.

The standards require that we plan and perform the audit to obtain reasonable assurance about whether the data and the records audited are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the data and records selected. It also includes assessing the accounting principles used and significant estimates made by the Consultant management, as well as evaluating the overall presentation.

The Consultant will perform professional and technical architectural and engineering services that may include consultation, investigation and a full range of pavement materials services. The total amount of this agreement shall not exceed \$7,500,000. Reimbursement is to be made at specified hourly rates to the following consultants:

Mactec Engineering and Consulting, Inc. (Prime)  
Applied Pavement Technology, Inc.\*  
Fugro Consultants LP\*  
Pavia Systems\*  
Twining Laboratories, Inc.\*  
KopiWorks\*

\* - Audit Waived.

The scope of the audit was limited to financial and compliance activities related to the above referenced agreement. The audit consisted of verifying the proposed costs and an assessment of the accounting principles used and significant estimates made by the Consultant, as well as an evaluation of compliance with Code of Federal Regulation (CFR) 49, Part 18 and CFR 48, Chapter 1, Part 31. A limited scope audit was performed on the Consultant since they are located out-of-state. We reviewed the agreement, interviewed applicable personnel, and performed limited tests on the Consultant's financial management system and proposed costs as of September 24, 2007. Financial management system and cost proposal changes subsequent to this date were not tested and, accordingly, our conclusion does not pertain to changes arising after this date. We did not audit or examine the proposed indirect rates since a postaward audit is significantly less in scope than an incurred cost audit or examination. We reviewed the proposed indirect rates for the purpose of accepting contract progress billings.

Due to inherent limitations in any financial management system, misstatements due to error or fraud may occur and not be detected. Also, projections of any audit of the financial management system to future periods are subject to the risk that the financial management system may become inadequate due to changes in conditions, or the degree of compliance with policies and procedures may deteriorate.

The results of the audit were communicated to Myron Nielsen, Project Controller, Mactec Engineering and Consulting, Inc., Tony Huang, Department Contract Manager, on September 25, 2007, and to Ray Shah, Department Contract Negotiator, on March 26, 2008. The findings take into consideration information provided as of September 24, 2007. Our findings and recommendations are set forth in the Attachment to this report. We requested, but did not receive, a formal response from the Consultant.

## CONCLUSION

Based on our audit work, we found the required fiscal provisions are included in the agreement. In addition, the Consultant's proposed costs are reasonable in relation to actual historical costs and estimating procedures and the Consultant's financial management system is adequate to accumulate and segregate reasonable, allocable, and allowable project costs, except as noted in the Attachment to this report.

This report is intended solely for the information of the Department and the Federal Highway Administration. However, this report is a matter of public record and its distribution is not limited.

Please forward a copy of the revised agreement and cost proposal to Audits and Investigations. If you have any questions, please contact Linda Laubinger, Audit Manager, at (916) 323-7957.

## ORIGINAL SIGNED BY:

Lisa Moreno  
Auditor

Approved:

## ORIGINAL SIGNED BY:

MARYANN CAMPBELL-SMITH  
Chief  
External Audits

Attachments

c: Jan Smelser, Chief, DPAC  
Tony Huang, Office of Structures Contract Management  
P1400-2676

**ATTACHMENT**  
**Postaward Audit Findings and Recommendations**  
**Agreement No.: 59A0561**

**Mactec Engineering and Consulting, Inc.**

**Finding 1**

Charlie Greer is no longer employed by the Consultant.

**Recommendation:** We recommend the individual listed above be removed from the cost proposal.

**Finding 2**

The proposed indirect rate of 170.39 percent is overstated. The evaluated rate is 156.81 percent for fiscal year 2006.

**Recommendation:** We recommend the evaluated 2006 fiscal year indirect rate of 156.81 percent be incorporated into the cost proposal.

**Finding 3**

The proposed rates for the following material tests are overstated:

<b>Test Name</b>	<b>Proposed</b>	<b>Evaluated</b>
Hydrometer analysis, assumed spec. gravity	\$150.00	\$139.50
Rvalue	200.00	198.00
California Bearing ratio with modified proct	510.00	427.50
Soil particle size analysis, sieve analysis with wa	70.00	67.50
Compressive strength of mortar grout cylinders	20.00	18.00

**Recommendation:** We recommend the evaluated rates for the material tests listed above be incorporated into the cost proposal.

**Finding 4**

The proposed other direct cost item, cell phone, is included in the Consultant's indirect rate.

**Recommendation:** We recommend the cell phone other direct cost item be removed from the cost proposal.